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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
A collection of information

Application or Pocket Number

09/893399

(Column 1)

(Column 2).

|  |  | (Column 1)       | (Column 2)   |
|--|--|------------------|--------------|
| FPR                                    |  | NUMBER FILED     | NUMBER EXTRA |
| BASIC FEE<br>(37 CFR 1.16(a))          |  |                  |              |
| TOTAL CLAIMS<br>(37 CFR 1.16(c))       |  |                  |              |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(b)) |  | minus 20 =       | *            |
|  |  | minus 9 =        | *            |
| MULTIPLE DEPENDENT CLAIM PRESENT       |  | (37 CFR 1.16(d)) |              |

\* If the difference is less than 10, enter 0.

\* If the difference in column 1 is less than zero, enter "0" in column 2.

CLAIMS AS AMENDED - PART II

| AMENDMENT A   | (Column 1)                                | (Column 2)                                  | (Column 3)       |
|---|---|---|------------------|
|   | CLAIMS<br>REMAINING<br>AFTER<br>AMENDMENT | HIGHEST<br>NUMBER<br>PREVIOUSLY<br>PAID FOR | PRESENT<br>EXTRA |
| 1/9/17  |   |   |                  |
| Total<br>(37 CFR 1.16(c))                                       | 10  | Minus                                       | =                |
| Independent<br>(37 CFR 1.16(b))                                 | 3   | Minus                                       | =                |
| FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d)) |   |   |                  |

| SMALL ENTITY |                |
|--------------|----------------|
| RATE         | ADDITIONAL FEE |
| X \$ _____ = |                |
| X \$ _____ = |                |
| X \$ _____ = |                |
| TOTAL        |                |
| ADD'L FEE    |                |

| OTHER THAN SMALL ENTITY |                |
|-------------------------|----------------|
| RATE                    | ADDITIONAL FEE |
| X \$ _____ =            |                |
| X \$ _____ =            |                |
| Plus _____ =            |                |
| TOTAL ADD'L FEE         |                |

| AMENDMENT # | (Column 1)                                |    | (Column 2)                                  |    | (Column 3)       |
|-------------|---|----|---|----|------------------|
|             | CLAIMS<br>REMAINING<br>AFTER<br>AMENDMENT |    | HIGHEST<br>NUMBER<br>PREVIOUSLY<br>PAID FOR |    | PRESENT<br>EXTRA |
| 9/11/7      | Total<br>(3) CFR 1.16(a)                  | 10 | Minus                                       | 20 | =                |
|             | Independent<br>(3) CFR 1.16(b)            | 3  | Minus                                       | 3  | = /              |

FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.15(d))

| RATE            | ADDITIONAL FEE |
|-----------------|----------------|
| X 1 _____ =     |                |
| X 1 _____ =     |                |
| X 1 _____ =     |                |
| TOTAL ADD'L FEE |                |

|    | RATE                    | ADDITIONAL<br>FEE |
|----|-------------------------|-------------------|
| OR | X 1 _____ =             |                   |
| OR | X 2 _____ =             |                   |
| OR | X 3 _____ =             |                   |
| OR | TOTAL<br>ADDITIONAL FEE |                   |

| AMENDMENT C  | (Column 1)                                |       | (Column 2)                                  |  | (Column 3)       |
|--|---|-------|---|--|------------------|
|  | CLAIMS<br>REMAINING<br>AFTER<br>AMENDMENT |       | HIGHEST<br>NUMBER<br>PREVIOUSLY<br>PAID FOR |  | PRESENT<br>EXTRA |
| Total<br>(37 CFR 1.16(c))  |   | Minus |   |  |                  |
| Independent<br>(37 CFR 1.16(b))                                  |   | Minus |   |  |                  |
| FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM. (37 CFR 1.16(d)) |   |       |   |  |                  |

| RATE                    | ADDITIONAL FEE |
|-------------------------|----------------|
| X <u>          </u> =   |                |
| X <u>          </u> =   |                |
| + <u>          </u> =   |                |
| TOTAL<br>ADDITIONAL FEE |                |

|    | RATE               | ADDITIONAL FEE |
|----|--------------------|----------------|
| OR | X \$ _____ =       |                |
| OR | X \$ _____ =       |                |
| OR | + \$ _____ =       |                |
| OR | TOTAL<br>ADD'L FEE |                |

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.  
 \* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".  
 \* The "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**

$$h(\mathbf{v}) = \frac{1}{2} \mathbf{v}^T \mathbf{H} \mathbf{v} + \mathbf{g}^T \mathbf{v} + c, \quad \mathbf{H} = \frac{1}{2} \frac{d^2 f}{d\mathbf{v}^2}(\mathbf{v}^*), \quad \mathbf{g} = \frac{df}{d\mathbf{v}}(\mathbf{v}^*) - \mathbf{H} \mathbf{v}^*, \quad c = f(\mathbf{v}^*) - \frac{1}{2} \mathbf{g}^T \mathbf{v}^* - \frac{1}{4} \mathbf{v}^{*T} \mathbf{H} \mathbf{v}^*.$$